

APPROVED PRODUCTS LIST

APPROVED WATER PRODUCTS LIST

All Products must conform to NSF/ANSI standards 60 or 61, if available.

- 1. Fire Hydrants (Flushing Valves, AWWA C 502) (Steamer Nozzle 5 1/4 inch, Pumper Nozzle 4 1/8 inch)
 - A. Mueller Model: Super Centurion 250, Option 110
 - B. Kennedy Model: Guardian K 81-A
 - C. $Clow 5 \frac{1}{4}$ " Medallion with grade 304 stainless steel bolts
 - D. WaterMaster Model: 5CD250
 - E. American AVK Series 2780 Nostalgic
- 2. Gate Valves (3/4 inch thru 2 inch, AWWA Approved, Bronze)
 - A. Hammond
 - B. Watts
 - C. Red and White
 - D. Matco Norca
 - E. Eagle
 - F. C and K
- 3. Gate Valves (3 inch and larger, AWWA C 509, Resilient Wedge Type)
 - A. Mueller
 - B. Waterous
 - C. American Darling
 - D. Kennedy
 - E. M & H
 - F. US Valve
 - G. Clow
- 4. PVC Pipe (AWWA C 900, C 905, C909)
 - A. J-M Manufacturing
 - B. CertainTeed Corp.
 - C. Diamond Plastics Corp.

- D. Carlon Company
- E. Underground Solutions Fusible C900/C905/PVC

5. Ductile Iron Fittings For C 900, C 905 or C 909 Pipe (AWWA C110, C153 or C151)

- A. All manufacturers compliant with AWWA and/or ASTM standards.
 - 1. SIP Industries

6. Steel Pipe (AWWA C 200)

- A. All manufacturers compliant with AWWA and/or ASTM standards.
- 7. Steel Pipe Coatings, Exterior (AWWA C 203)
 - A. All manufacturers compliant with AWWA and/or ASTM standards.
- 8. Steel Pipe Coatings, Interior (AWWA C 210, D 102, TNRCC NSF 61)
 - A. All manufacturers compliant with AWWA and/or ASTM standards. Bituminous interior coatings are not allowed.
- 9. Curb Stop Bronze, Ball Valve, 360° Rotation, Locking Wing
 - A. Ford
 - B. Mueller Model: Mark II Oriseal
 - C. James Jones
 - D. MacDonald

10. Corporation Stop – Bronze

- A. Ford Model: F100
- B. Mueller Model: H-15008 or H-15013
- C. James Jones
- D. MacDonald

11. Service Saddle - Dual Strap, Stainless Steel, Epoxy Coated Saddle

- A. Ford
- B. Mueller
- C. Clow
- D. James Jones
- E. MacDonald
- F. JCM
- G. Power Seal
- H. Dresser Style 291

12. Service Saddle - Single Wide-Band Strap, Stainless Steel, Epoxy Coated Saddle

A. Various mfrs.

13. Water Meters (AWWA Approved)

- A. Neptune Trident (Schlumberger)
- B. Badger
- C. Sensus (old Rockwell)

14. Service Tubing (3/4 inch thru 2 inch Type "K" Annealed, Seamless Copper Tubing, AWWA B 88)

- A. Cerro
- B. Wolverine
- C. Mueller-Streamline
- D. Holstad

15. Polyethylene Encasement Tubing For Copper Water Service, 8 mil min. (AWWA C 105)

A. All manufacturers compliant with AWWA and/or ASTM standards.

16. Service Tubing (3/4 inch thru 2 inch Polyethylene Tubing) (ASTM D3350, ASTM D2239 and NSF-14)

A. Endopure Pure Virgin Polyethylene

17. Air Release Valve, 2 inch (Bonney Forge 3,000# Threadolet)

- A. APCO No. 200
- B. GA Industries Fig. 2-AR
- C. Val-matic, 2 inch
- D. ARI Model D-040, D-040-C, D-060-C HF, D-062HF

18. Meter Boxes

- A. Plastic
 - 1. DFW
 - 2. Gross
 - 3. Brooks Products
- B. Concrete
 - 1. Brooks Products
 - 2. Southern Precast

| 19. | Pine | Casing | Spacers | æ | End | Seals | s for | Bored | Crossings |
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A. Pipeline Seal and Insulator (PSI)

APPROVED SANITARY SEWER PRODUCTS LIST

- 1. Gravity Flow Pipes (J-M Manufacturing, CertainTeed Corp., Diamond Plastics Corp., Texas United Pipe Inc., Carlon Company, or Underground Solutions Fusible C900/C905/PVC) (ASTM C 76 Various Manufacturers)
 - A. PVC, 12 inch and smaller to max.depth of 12 feet SDR 26, min. 160 PSI rating, ASTM D 2241 pipe, D3212 joint with F477 rubber gasket, F679 fittings
 - B. PVC, 12 inch and smaller exceeding 12 feet in depth AWWA C 900, DR 18, Class 150 pipe, joined per ASTM 3139 with F477 rubber gasket
 - C. PVC, Larger than 12 inch and smaller than 24 inch to max. depth of 12 feet DR 25, min. 165 PSI rating, D3212 joint with F477 rubber gasket
 - D. PVC, Larger than 12 inch and smaller than 24 inch exceeding 12 feet in depth -AWWA C 905, DR 18, Class 235 pipe, joined per ASTM 3139 with F477 rubber gasket
 - E. PVC, 24 inch and larger at all depths AWWA C 905, DR 18, Class 235 pipe, joined per ASTM 3139 with F477 rubber gasket
 - F. Fiberglass Reinforced Polyester (FRP) sewer pipe (Transmission only No service leads allowed) ASTM D 3262, ASTM D 3517, ASTM 3754 or AWWA C 950 Depths per Manufacturers Recommendations
- 2. Force Mains (J-M Manufacturing, CertainTeed Corp., Diamond Plastics Corp., Carlon Company, or Underground Solutions Fusible C900/C905/PVC)
 - A. PVC, 12 inch and smaller at all depths AWWA C 900, DR 18, Class 150 pipe, joined per ASTM 3139 with F477 rubber gasket
 - B. PVC, Larger than 12 inch at all depths AWWA C 905, DR 18, Class 235 pipe, joined per ASTM 3139 with F477 rubber gasket
 - C. Fiberglass Reinforced Polyester (FRP) sewer pipe ASTM D 3517, ASTM 3754 or AWWA C 950 Depths per Manufacturers Recommendations
- 3. Ductile Iron Fittings For C 900, C 905 Pipe (AWWA C 110, AWWA C 153)
 - A. All manufacturers compliant with AWWA and/or ASTM standards.
- 4. PVC Drainage Pattern Fittings For SDR 26 and DR 25 Pipe (ASTM D 3034)
 - A. GPK
 - B. J-M Manufacturing
 - C. Vassallo
 - D. Plastic Trends
- 5. Pipe Connectors / Adapters / Flexible Couplings
 - A. Fernco
 - B. Indiana Seal
 - C. Flow Control
 - D. Flow Seal
 - E. DFW

6. Coating for Manholes & Lift Stations (40 Mils. Minimum Thickness)

- A. Ipagard Epoxy
- B. Thane Coat FE 100
- C. Strong Seal MS-2
- D. Polyurea
- E. Fosrok
- F. Aquatapoxy A-6
- G. Tnemec Series 66 epoxy coating
- H. Aegis Coating Technologies epoxy coating
- I. Lotus Chemicals epoxy coating
- J. Quadex Aluminaliner calcium aluminate sewer rehabilitation mortar (min. 1 inch/max. 3 inch thickness)
- K. Acropoxy 4582 epoxy coating
- L. Poly-Triplex Liner System

7. Lift Station Submersible Pumps

- A. KSB
- B. Flyght
- C. ABS
- D. Gorman Rupp
- E. PACO

8. Lift Station Dry Pit Pumps

- A. Pacific Pumps
- B. Crown
- C. Gorman-Rupp
- D. PACO

9. Check Valve

- A. Stockman
- B. Watts
- C. Sepco
- D. Mission
- E. Val-matic

10. Lift Station Control Panels

- A. E.G. Controls
- B. Consolidated Electric
- C. Murphymatic
- D. Sta-Con, Inc.
- E. Automatic Control Systems
- F. Mercer Controls Division
- G. Motor Controls, Inc.

11. Air Release Valves

A. ARI Model D-025, D-020 (Stainless Steel)

12. Manhole Covers and Rings, CITY OF SUGAR LAND Specs, (ASTM A 48, AASHTO H-20 Load Rating)

- A. Vulcan Foundry 32 inch diameter, Model V-2420
- B. Neenah Foundry 32 inch diameter, Model R-1741-F
- C. East Jordan Iron Works, Inc. 32 inch diameter, Model V-1420
- D. Star Pipe Products 32 inch diameter, COMC Spec.
- E. Ductile Iron ring and cover 32 inch diameter,
- F. SIP 32 Diameter Manhole cover Item 2250

13. Manhole Inserts (No Flow/In-Flow Protector)

A. Various Mfgs.

14. Manholes (Precast Concrete, CITY OF SUGAR LAND Specifications)

- A. More-Tex
- B. Southern Precast
- C. Calvert
- D. Gifford Hill
- E. Brooks Products
- F. Dalworth
- G. Precast Systems, Inc.
- H. Koastal Precast, Inc.
- I. Hanson Pipe & Products

15. Manholes (Corrosion-Resistant Polymer, CITY OF SUGAR LAND Specifications - Requires Specific Approval)

A. United Polymer Technology - Fabri-Kast Solid Cast Polymer (SCP)

16. Geotextile Fabric Wrap

A. Various Mfgs.

17. Pipe Casing Spacers & End Seals for Bored Crossings

A. Pipeline Seal and Insulator (PSI)

APPROVED STORM SEWER PRODUCTS LIST

1. Manhole Covers and Rings, CITY OF SUGAR LAND Specs, (ASTM A 48, AASHTO H-20 Load Rating)

- A. Vulcan Foundry 32 inch diameter, Model V-2420
- B. Neenah Foundry 32 inch diameter, Model R-1741-F
- C. East Jordan Iron Works, Inc. 32 inch diameter, Model V-1420
- D. Star Pipe Products 32 inch diameter, COMC Spec.

2. Storm Inlet Grates and Frames, CITY OF SUGAR LAND Specs, (ASTM A 48, AASHTO H-20 Load Rating)

- A. Vulcan Foundry
- B. Neenah Foundry
- C. East Jordan Iron Works, Inc.

3. Pipe Materials

- A. RCP, 24 inch and larger at all depths ASTM C 76 with rubber gasketed
- B. joints conforming to ASTM 433 (Various Manufacturers)
- C. HDPE, 24 inch and larger at all depths AASHTO CM-294 (Various Manufacturers)
- D. Contech Profile Wall PVC Storm Sewer, 24 inch and larger ASTM F949-03

4. Reinforced Concrete Box Culverts (ASTM C 789, C 850, AASHTO M259, M 273 – Various Manufacturers)

- A. RCB, 24 inches X 24 inches and larger having min. 2 feet to max. 12 feet of cover ASTM C 789/AASHTO M 259 joined with "Ramnek" joint sealing compound by K.T. Snyder Co.
- B. RCB, 24 inches X 24 inches and larger having less than 2 feet cover or greater than 12 feet of cover ASTM C 850/AASHTO M 276 joined with "Ramnek" joint sealing compound by K.T. Snyder Co.

5. Corrugated Metal Outfall Pipes To Receiving Channels In Drainage Easements (ASTM A762, A742, M36, M246 – Various Manufacturers)

A. CGMP, 24 inches and larger to max. depths recommended by manufacturer – polymer coated corrugated steel pipe joined with coupling bands as per manufacturer's recommendations. Minimum thickness required is 12 gauge.

6. Manholes and Storm Inlets (Precast Concrete, CITY OF SUGAR LAND Specifications)

- A. More-Tex
- B. Southern Precast
- C. Calvert
- D. Gifford Hill
- E. Brooks Products
- F. Dalworth

- G. Precast Systems, Inc.
- H. Koastal Precast, Inc.

7. Manholes (Corrosion-Resistant Polymer, CITY OF SUGAR LAND Specifications – Requires Specific Approval)

A. United Polymer Technology - Fabri-Kast Solid Cast Polymer (SCP)

8. Geotextile Fabric Wrap

- A. Trevira S1114
- 9. Pipe Casing Spacers & End Seals for Bored Crossings
 - A. Pipeline Seal and Insulator (PSI)

APPROVED STREET PRODUCTS LIST

1. Raised Pavement Markers (Class A, B, C & D)

A. Apex Universal (or equivalent)

2. Type Y and Type W Traffic Buttons (ceramic only)

A. Apex Universal (or equivalent)

3. Raised Pavement Marker Adhesive

- A. Bundy Raised Pavement Marker Adhesive
- B. TxDOT approved epoxy

4. Thermoplastic Pavement Markings (125 mils thick)

A. Flint Trading Inc. - Premark LKF Roadmarking Material (or equivalent)

5. Prefabricated Pavement Markings (125 mils thick)

A. Flint Trading Inc. - Premark LKF Roadmarking Material (or equivalent)

6. Thermoplastic Adhesive

A. Ashland Chemicals - Pliobond 10 (or equivalent)

7. Crack and Joint Sealant (Various Manufacturers)

A. Elastometric-type, Hot-pour Joint Sealant conforming to TxDOT Item 433 and TxDOT Departmental Material Specification D-9-6310

8. Paints (Various Manufacturers)

A. Only water based conforming to TxDOT specifications are approved for use in the City of CITY OF SUGAR LAND

9. Road Marker Posts

A. Carsonite # CRM-375 (or equivalent)

10. Replaceable Delineator Post w/ Base (Epoxy or 8" Bundy Adhesive)

A. Repo TM Model (or equivalent)

11. Concrete Curing Membranes (Various Manufacturers)

A. Liquid membrane-forming Curing Compound conforming to TxDOT Item 526 and TxDOT Departmental Material Specification D-9-8120

12. Chemical Stain For Use On Ramps for Handicapped Access, Cola Color (A.D.A., Texas Accessability Standards.)

A. Kemiko Concrete Products – "Cola" color (or equivalent)

13. Traffic Control Signalization, Lighting and Appurtenances (Various Manufacturers)

All materials and manufactured products pertaining to traffic control signals, lighting, and associated appurtenances shall conform to current Texas Department of Transportation specifications and shall be listed in the TxDOT Prequalified Master List of Approved Products at time of installation.

NOTE:

Materials and manufactured items utilized for construction of public infrastructure in public rights-of-way and easements within the corporate limits and extraterritorial jurisdiction of CITY OF SUGAR LAND, Texas shall comply in all respects with those listed above in this Approved Products List.

Materials and manufactured items not listed herein may be submitted to the Engineering Department for review and consideration on a case-by-case basis. In no instance shall such items be installed without specific approval having been granted by the Engineering Department prior to construction.

APPROVED BY:

Christopher Steubing, P.E. CFM
City Engineer

SuEllen Staggs
Utilities Director

Director of Public Works

Mike Hobbs

ATTACHMENT A

CITY OF SUGAR LAND ENGINEERING DEPARTMENT

PRODUCT APPROVAL APPLICATION

Instructions

All information requested below must be submitted in full. Please label each section with the item number conforming to the list below. The Committee will review no application until the submittal is complete. Failure to provide full disclosure may be grounds for disapproval of product.

Revisions to the City of Sugar Land's Approved Product List are issued at the end of each calendar quarter. Applications must be received a minimum of 4-weeks prior to the end of each quarter to be considered for approval for that quarter.

Eight (8) copies of the application should be sent to:

City Engineer City of Sugar Land 2700 Town Center Blvd. N. Sugar Land, TX 77478

Item

- 1. Basic general information Provide all information requested on attached form (Item 1).
- 2. Existing Installations of Product The following data is requested on representative installations of your product. A sample form (Item 2) is attached or you may use your own tabular format. Failure to disclose representative installations can be grounds for disapproval of product.
- 3. Describe materials of construction (including relevant industry standards e.g., ASTM, ANSI, AWWA, etc.), special manufacturing processes and quality control measures used in the manufacture and installation of your product. Include copies of relevant referenced specifications or standards. Also include Material Safety Data Sheets (MSDS) and National Sanitary Foundation (NSF) testing results in all products in contact with potable water or otherwise providing an exposure to operations or maintenance personnel.
- 4. Indicate if there are any special conditions (such as pipe size) for optimal performance of the product. Specify conditions or requirements for optimal performance. Where appropriate, include the engineering data required for proper application of the product. Indicate relevant safety factors, and pressure, temperature, or environmental limits.
- 5. Are current City of Sugar Land technical specifications adequate for inclusion of the Updated December 2007 Page 12 of 14

product? Are exceptions to the City specifications being requested?

- 6. Provide Certifications of Compliance to applicable City of Sugar Land standards and codes.
- 7. Engineering Design Guide Attach a copy of the Engineering Design Guide or Installation Guide for the proposed product. This document should indicate that it was prepared under the supervision of a Registered Professional Engineer in the state of the manufacturer. Should engineering certification not be a part of the standard printed documents, a letter should be provided from the manufacturer that the Engineering Design Guide was prepared under the supervision of a Registered Professional Engineer. The name, seal, registration number and expiration date of the supervising engineer should be included in either the design guide as the accompanying letter.
- 8. Client References Provide names, addresses, phone numbers and job identification of current and past clients. The City will contact selected references concerning product performance.
- 9. Provide copies of tests conducted by independent testing companies showing conformance with industry standard and City's specification established for the product.
- 10. Provide information relating to patents, licenses and/or franchises held on the product. Include specific descriptions and relevant data such as patent (license) number and date issued.
- 11. Provide any other related information. Although not required, our application submittal may include other data to assist the Committee in evaluating the product for use on City of Sugar Land projects. This information could include brochures, videotapes, product samples and/or photographs. The Committee cannot be responsible for return of these materials. One (1) copy of video tapes and product samples is sufficient for committee review.

CITY OF SUGAR LAND ENGINEERING DEPARTMENT

PRODUCT APPROVAL APPLICATION

| | | Application Number | |
|-----------------|---|--------------------|--|
| | | Date Received | |
| | | Submittal Complete | |
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| | (Do not write above this line for | City use only) | |
| ITEM 1. | General Information | | |
| Product Name | | | |
| Individual (| tive Company Name Contact(s) ress | | |
| City, State, | Zip Code | | |
| Telephone _ | Fax | | |
| E-Mail Add | lress | | |
| Manufactur | rer Company Name | | |
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| Product App | oplication(s) | | |
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